

Claims.

1. A method of managing data presented to and received from a de-scrambling device, the method comprising
 - 5 receiving at least a first and a second data stream, each data stream comprising a plurality of packets and each packet having a header including a packet identifier,
alternately passing data from each data stream to a de-scrambling device,
 - 10 receiving de-scrambled packets from the de-scrambling device and alternately passing data to at least a first and a second output, so restoring the first and second data streams in a de-scrambled form.
2. A method according to claim 1 further comprising alternately passing a
 - 15 single packet from each data stream to a de-scrambling device, and
receiving de-scrambled packets from the de-scrambling device and alternately passing a single packet to a first output and a single packet to a second output, so restoring the first and second data streams in a de-scrambled form.
- 20 3. A method according to Claim 1 or 2 wherein at least one packet identifier of the packets of one of the data streams is modified before being passed to the de-scrambling device.
- 25 4. A method according to claim 1, 2 or 3 wherein prior to passing packets to the de-scrambling device the packet identifiers of the data streams are compared with each other.
- 30 5. A method according to any preceding claim wherein the data streams include program specific information, wherein the program specific information is read from the data streams prior to passing packets to the de-scrambling device.

6. A method according to any preceding claim wherein each data stream conforms to ISO 13818 and the packet identifiers are PID as defined in ISO 13818.

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7. A method according to any preceding claim wherein the interface with the de-scrambling device conforms to European Standard EN50221.

8. A method according to any preceding claim wherein some of the
10 packets from one or more data streams bypass the de-scrambling device.

9. A method according to any preceding claim wherein the packets from first and second data streams are passed to the de-scrambling device on one of the rising or falling edges of a clock signal respectively .

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10. A method according to claim 9 wherein the de-scrambled packets are received from the de-scrambling device on one of the rising or falling edges of a clock signal respectively .

20 11. A method according to any preceding claim wherein the data streams are digital video broadcasting transport streams.

12. A method according to claim 11 wherein the transport streams comply with the Digital Video Broadcasting standard.

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13. A receiver comprising

a first input for receiving a first data stream and a second input for receiving a second data stream, each data stream comprising a plurality of packets and each packet having a header including a packet identifier,

30 a de-scrambling device for receiving packets of a data stream for de-scrambling,

a first and second output for outputting de-scrambled data streams,

and a router arranged to pass data alternately from the first and the second data streams to the de-scrambling device and to receive de-scrambled packets from the de-scrambling device and to pass data alternately to a first and a second output, so restoring the first and second data streams in a de-scrambled form.

14. A receiver according to Claim 13 wherein the router is arranged to pass alternately a single packet from the first data stream and a single packet from the second data stream.

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15. A receiver according to Claim 13 or 14 wherein the router is arranged to modify at least one packet identifier of the packets of a data stream before passing the data for that data stream to the de-scrambling device.

16. A receiver according to claim 13, 14 or 15 wherein the router is arranged to compare the packet identifiers of the first data stream with the packet identifiers of the second data stream prior to passing packets to the de-scrambling device.

17. A receiver according to any of claims 13 to 16 wherein the data streams include program specific information, the router being arranged to read the program specific information from the data streams prior to passing packets to the de-scrambling device.

18. A receiver according to any of claims 13 to 17 wherein each data stream conforms to ISO 13818 and the packet identifiers are PID as defined in ISO 13818.

19. A receiver according to any of claims 13 to 18 wherein the interface with the de-scrambling device conforms to European Standard EN50221.

20. A receiver according to any of claims 13 to 19 wherein the receiver is a digital video broadcasting receiver.

21. A receiver according to any of claims 13 to 20 further arranged to allow
5 some of the packets from the first and/or second data stream to bypass the de-scrambling device.

22. A receiver according to any of claims 13 to 21 wherein the packets
10 from the first and second data streams are passed to the de-scrambling device on one of the rising or falling edges of a clock signal respectively .

23. A receiver according to claim 22 wherein the de-scrambled packets are
received from the de-scrambling device on one of the rising or falling edges of
a clock signal respectively .

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24. A router for routing packets of a first data stream and a second data
stream to and from a de-scrambling device, each data stream comprising a
plurality of packets and each packet having a header including a packet
identifier,

20 the router being arranged to pass data alternately from the first and the
second data streams to the de-scrambling device and to receive de-
scrambled packets from the de-scrambling device and to pass data alternately
to a first and a second output, so restoring the first and second data streams
in a de-scrambled form.

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25. A de-scrambling device comprising;

an input for receiving a clock signal, a first and a second input buffer, a
de-scrambling module and first and second output buffers, the de-scrambling
device being arranged to clock input data into the first and second input
30 buffers on one of the rising and falling edge of the clock signal respectively
and to clock data out of the output buffers on one of the rising and falling
edge of the clock signal respectively.

26. A de-scrambling device according to claim 25 wherein the de-scrambling device is arranged to data conforming to a Digital Video Broadcasting standard.

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27. A computer program product which, when said product is loaded, causes a computer to execute procedure to manage data presented to and received from a de-scrambling device, the computer program product comprising computer program code to make the computer execute procedure

10 to receive at least a first and a second data stream, each data stream comprising a plurality of packets and each packet having a header including a packet identifier,

to pass data alternately from each data stream to a de-scrambling device, and

15 to receive de-scrambled packets from the de-scrambling device and to pass data alternately to at least a first and a second output, so restoring the first and second data streams in a de-scrambled form.

28. A computer program product according to claim 27 further comprising
20 computer program code to make the computer execute procedure to pass alternately a single packet from each data stream to a de-scrambling device, and to receive de-scrambled packets from the de-scrambling device and to pass alternately a single packet to a first output and a single packet to a second output, so restoring the first and second data streams in a de-
25 scrambled form.